SeaQuest AEM Report

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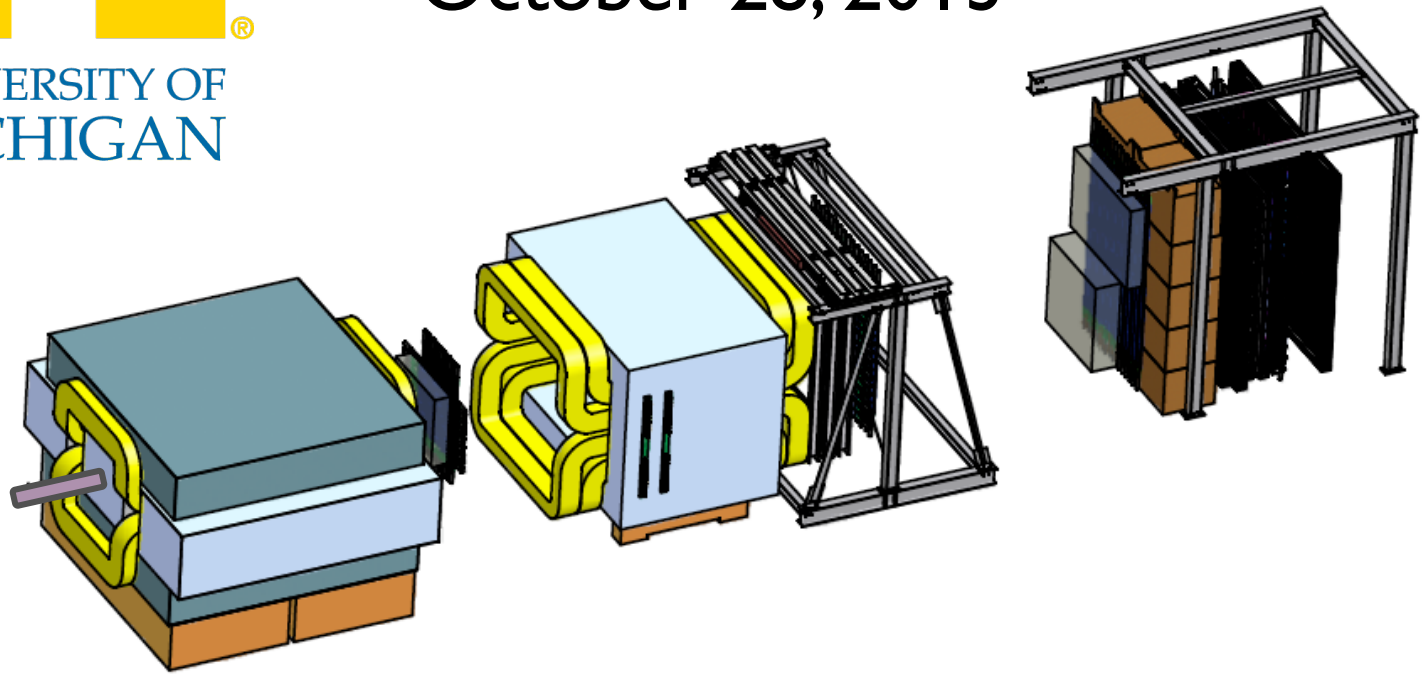
October 28, 2013



Beamline: Beam to SeaQuest as soon as Monday (11/4)

Magnets:

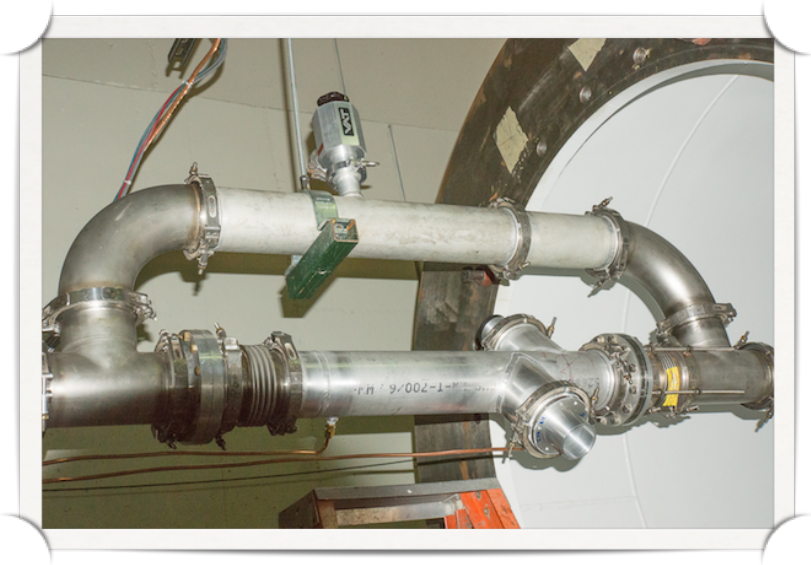
- both focusing and spectrometer magnets tested successfully
- a small glitch with the spectrometer magnet interlock signal fixed easily

Targets: Solid carbon, iron, and tungsten targets were installed this week alongside tested cryotargets.

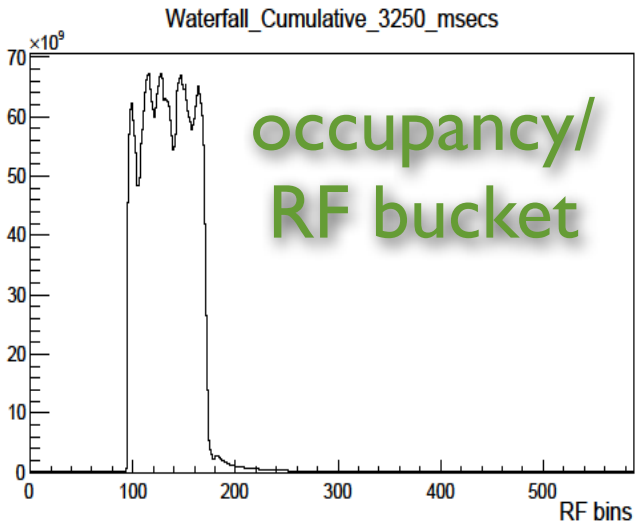
Cherenkov Intensity Monitor

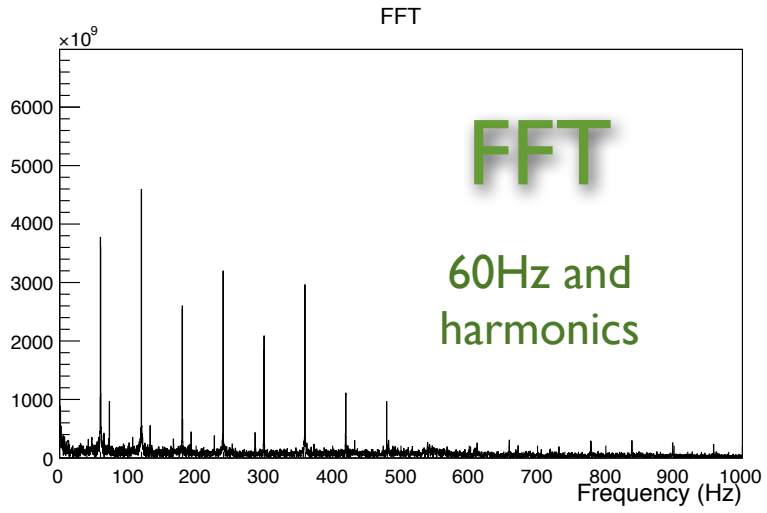
(bucket-by-bucket intensity measurement)

- Most hardware and software complete and installed
- v.2 of QIE charge integrator/readout board ready today
  - ➡ stays locked to beam RF (vs. spill-by-spill)
  - ➡ improved communication bandwidth
  - ➡ 512MB local memory

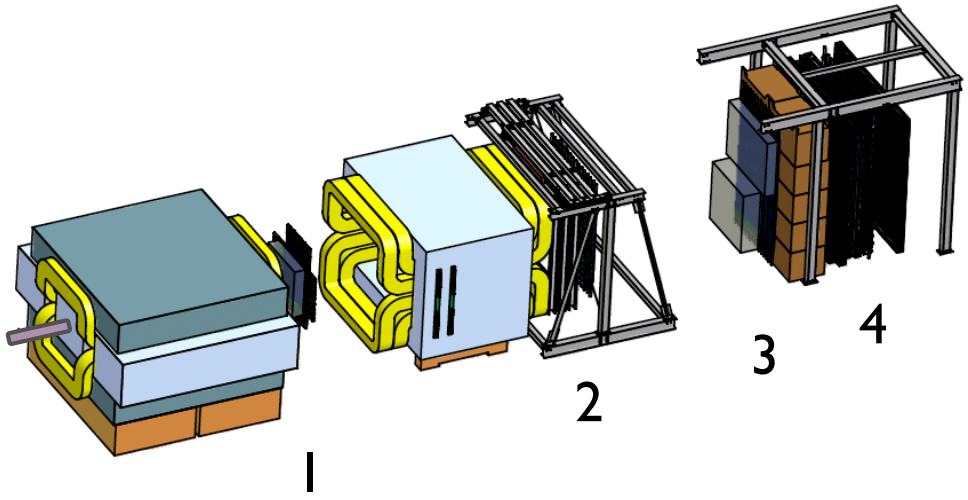


similar setup installed at MTest with hodoscope using v.1 board

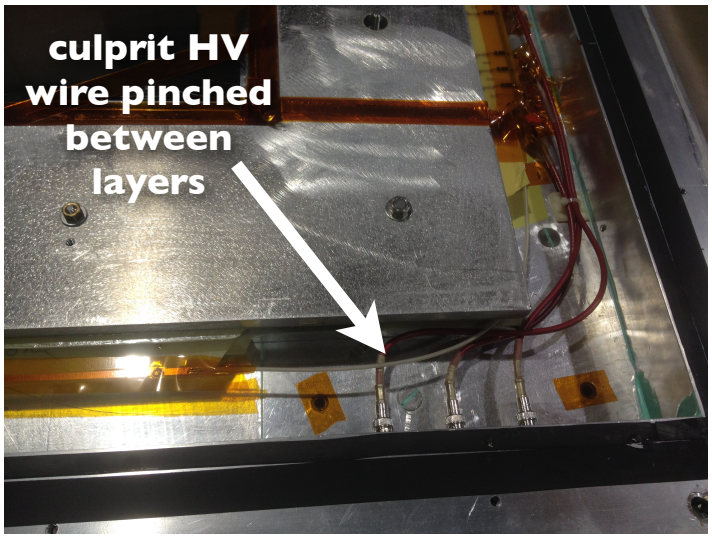




Detectors



- All detectors in place and working
- Station 2U drift chamber was efficiently serviced on loading dock and HV dead-short was repaired... back in place and operating properly
- Various mapping checks and calibration underway



computing

- updated decoder and online event reconstruction complete
- "SeaScape" web-based online monitoring being tested

- database server needs to be installed and configured in NM4
- full online data pipeline needs to be configured

Conclusions

- Official safety walkthrough this afternoon
- Critical to-do before beam
  - ➡ software configuration
  - ➡ hodoscope survey
  - ➡ short NM3 access to adjust target positions and install beamline Cherenkov PMT
- All other ongoing calibrations and tests are easier with beam